

CORRESPONDENCE

To the Editor of the JOURNAL OF THE ROYAL AERONAUTICAL SOCIETY.

SIR,—I was interested to read on page 547 of the October issue of the Journal the statement in a note by Mr. Oscar F. Gnosselius that:—

“ Mr. Handley Page, by constructing a few rough feathers and arranging them in a certain manner, has been able to multiply the lift coefficient by approximately 3. With this disposition, however, the drag has been reduced to about 5 to 1, thus reducing the practical value of the discovery.”

I presume that Mr. Gnosselius refers to the slotted wing, but I am unable to follow the figures which he gives, and would ask him if he could furnish some explanation of them.

With the slotted wing the maximum lift coefficient of 1.96 has been obtained.

That part of the drag coefficient due to induced resistance is dependent on aspect ratio alone, and is therefore unaltered by the slotting of the wings. The profile resistance of the section is increased by slotting, but certainly not nine times. Twice would seem to be a figure more in accordance with the test results.

As, however, Mr. Gnosselius refers to the construction of “ a few rough feathers ”—of which I was unaware—I should be interested to hear as to what he refers and the results which were obtained.—I am, Sir, Your obedient servant,

F. HANDLEY PAGE.

October 28th, 1925.

To the Editor of the JOURNAL OF THE ROYAL AERONAUTICAL SOCIETY.

DEAR SIR,—I am sorry to learn that Mr. Handley Page objects to my description of his slotted wing as a few rough feathers. When I first found the remarkable results which could be obtained by dividing a wing into a series of vanes I was struck by the fact that the bird's wing also consisted of a series of vanes, and I have always looked on the phenomenon as a sort of vane or feather effect.

Nature uses many more vanes than Mr. Handley Page, and therefore I used the word few. I said rough because the vanes roughly resemble a bird's feathers. Perhaps the word was not very wisely chosen, as a bird's feathers are in some respects rough and Mr. Handley Page's vanes are smooth.

What I wanted to point out was the remarkable results which had already been obtained by departing from the single surface and adopting a multi-vane construction.

With regard to the figures for the drag coefficient which I mentioned, and which Mr. Handley Page also objects to, I arrived at the rough figure nine in the following manner: A wing section of the R.A.F.15 type gives an L/D ratio of approximately 15 to 1 at about a quarter of the maximum lift coefficient where normal flight usually occurs. The slotted wing in the form giving the highest lift coefficient I have always found to give an L/D ratio of about 5 to 1 over